

**CLAIMS**

1. A communication apparatus running a protocol stack implementation for interworking between a signaling source node and a signaling target node, comprising:

a first protocol implementation unit adapted to run a signaling control layer of the protocol stack on top of a packet transfer network for exchange of signaling data via at least one signaling association;

a second protocol implementation unit adapted to run a user adaptation layer of the protocol stack on top of said signaling control layer for support of signaling connection control services used by the signaling source node; wherein

a name mapping unit is adapted to receive a signaling target node name from said signaling source node and to map the signaling target node name into a peer signaling association.

2. The communication apparatus of claim 1, wherein said name mapping unit is comprised in said second protocol implementation unit.
3. The communication apparatus of claim 1, wherein said name mapping unit comprises a mapping data interface unit adapted to distribute and/or receive signaling association attributes via said signaling control layer.
4. The communication apparatus of claim 1, wherein said name mapping unit comprises a memory unit adapted to store signaling association attributes locally in the communication apparatus.
5. A communication apparatus running a protocol stack implementation for interworking between a signaling source node and a signaling target node, comprising:

a first protocol implementation unit adapted to run a signaling control layer (SCTP) of the protocol stack on top of a packet transfer network (IP) for exchange of signaling data via at least one signaling association;

a second protocol implementation unit adapted to run a user adaptation layer of the protocol stack on top of said signaling control layer for support

of signaling connection control services used by the signaling source node; wherein

a name mapping unit is adapted to receive a signaling target node name from the signaling source node and to map said signaling target node name into a peer signaling association; and

said mapping unit further comprises a target node name resolution unit adapted to map a destination name into said peer signaling association according to a specified algorithm.

6. The communication apparatus of claim 5, wherein said target node name resolution unit is of a client/server type responding to name translation requests from signaling source node clients in a local and/or remote manner.
7. The communication apparatus of claim 5, wherein said target node name resolution unit is further adapted to consider at least one criterion selected from a group comprising target node capability, target node load, and routing criteria association attributes to map said signaling target node name into said peer signaling association.
8. A communication apparatus running a protocol stack implementation for interworking between a signaling

source node and a signaling target node,  
comprising:

a first protocol implementation unit adapted to run  
a signaling control layer of the protocol stack on  
top of a packet transfer network for exchange of  
signaling data via at least one signaling  
association;

a second protocol implementation unit adapted to  
run a user adaptation layer of the protocol stack  
on top of said signaling control layer for support  
of signaling connection control services used by  
the signaling source node; wherein

a name mapping unit is adapted to receive a  
signaling target node name from the signaling  
source node and to map said signaling target node  
name into a peer signaling association, and

said name mapping unit further comprises a fault  
management unit adapted to detect an inoperative  
peer signaling association and/or an inoperative  
signaling transport address in a peer signaling  
association and to select another signaling  
transport address under said same signaling target  
node name.

9. A method of running a protocol stack implementation  
for interworking between a signaling source node

and a signaling target node, comprising the steps of:

running a signaling control layer of the protocol stack on top of a packet transfer network for exchange of signaling data via at least one signaling association;

running a user adaptation layer of the protocol stack on top of said signaling control layer for support of signaling connection control services used by the signaling source node;

receiving a signaling target node name from the signaling source node and mapping said signaling target node name into a peer signaling association.

10. The method of claim 9, which comprises a step to check an availability of said peer signaling association and triggering a build-up thereof.
11. The method of claim 9, which further comprises a step distributing and/or receiving signaling association attributes via said signaling control layer.
12. The method of claim 9, which further comprises the step of storing signaling association attributes locally at the signaling source node.

13. A method of running a protocol stack implementation for interworking between a signaling source node and a signaling target node, comprising the steps of:

running a signaling control layer of the protocol stack on top of a packet transfer network for exchange of signaling data via at least one signaling association;

running a user adaptation layer of the protocol stack on top of said signaling control layer for support of signaling connection control services used by the signaling source node;

receiving a signaling target node name from the signaling source node and mapping said signaling target node name into a peer signaling association; wherein

said mapping of said signaling target node name into said peer signaling association is carried out according to a specified algorithm.

14. The method of claim 13, wherein said specified algorithm is a query responsive database algorithm.
15. The method of claim 13, wherein said specified algorithm is a table lookup algorithm.

16. A method of running a protocol stack implementation for interworking between a signaling source node and a signaling target node, comprising the steps of:

running a signaling control layer of the protocol stack on top of a packet transfer network for exchange of signaling data via at least one signaling association;

running a user adaptation layer of the protocol stack on top of said signaling control layer for support of signaling connection control services used by the signaling source node;

receiving a signaling target node name from the signaling source node and mapping said signaling target node name into a peer signaling association;

considering at least one criterion selected from a group comprising target node capability, target node load, and routing criteria association attributes when mapping said signaling target node name into said peer signaling association.

17. A method of running a protocol stack implementation for interworking between a signaling source node and a signaling target node, comprising the steps of:

running a signaling control layer of the protocol stack on top of a packet transfer network for exchange of signaling data via at least one signaling association;

running a user adaptation layer of the protocol stack on top of said signaling control layer for support of signaling connection control services used by the signaling source node;

receiving a signaling target node name from the signaling source node and mapping said signaling target node name into a peer signaling association;

detecting an unreachable peer signaling association and/or an unreachable signaling transport address in a peer signaling association and selecting another signaling transport address under said same signaling target node name.

18. A method of running a protocol stack implementation for interworking between a signaling source node and a signaling target node, comprising the steps:

running a signaling control layer of the protocol stack on top of a packet transfer network for exchange of signaling data via at least one signaling association;



running a user adaptation layer of the protocol stack on top of said signaling control layer for support of signaling connection control services used by the signaling source node;

receiving a signaling target node name from the signaling source node and mapping said signaling target node name into a peer signaling association;

maintaining a data base storing name spaces and/or association attributes and updating said data base.

19. The method of claim 18, wherein said updating of said data base at least comprises one step selected from a group comprising signaling node registration, mapping node registration, signaling node deregistration, mapping node deregistration, and signaling node routing policy change registration.
20. A computer program product directly loadable into the internal memory of a communication device, comprising software code portions for performing the steps of claim 9 when the product is run on a processor of the communication device.